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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,096	02/17/2000	Bruce L. Davis	60100	7654

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DIGIMARC CORPORATION  
9405 SW GEMINI DRIVE  
BEAVERTON, OR 97008

EXAMINER

EDWARDS, PATRICK L

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/507,096

Applicant(s)

DAVIS ET AL.

Examiner

Patrick L Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 85-93 is/are pending in the application.
- 4a) Of the above claim(s) 89 and 90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 85-88, 91-93 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. The response received on 10-22-2004 has been placed in the file and was considered by the examiner. An action on the merits follows.

#### *Response to Arguments*

2. The applicant's arguments, filed on 10-22-2004, have been fully considered. A response to these arguments is provided below.

### 35 USC 112, First Rejections

Summary of Argument: Claim 87 was previously rejected under 35 USC § 112(1) as failing to comply with the written description requirement. Specifically, the claim calls for the media signal to comprise an audio signal. The examiner—in the previous action—stated that this feature was not described in the applicant's disclosure. Applicant traverses this rejection and points to pages 26 and 27 of the specification as showing support for this claimed feature.

Claim 88 was also rejected under 112(1) as failing to comply with the written description requirement. Specifically, the claim calls for the reference to comprise an identifier. The examiner—in the previous action—stated that this feature was not described in the applicant's disclosure. Applicant traverses this rejection and points to pages 13 and 15 of the specification to show support for this feature.

Examiner's Response: Applicant's arguments have been fully considered and are persuasive. The prior rejections under 35 USC § 112(1) to claims 87 and 88 are hereby withdrawn.

### Prior Art Rejections

Summary of Argument: Claims 91 and 92 were previously rejected under 35 USC 102(e) as being anticipated by Narayanaswami et al. (US 2003/0011684). Applicant traverses both of these rejections. Referring to claim 91, applicant argues that the camera electronic circuitry disclosed in Narayanaswami does not qualify as the claimed "media signal recorder." Specifically, applicant argues that Narayanaswami neither records a media signal nor transfers a media signal to an external computer (see applicant's remarks pg. 5).

Referring to claim 92, applicant does not argue that Narayanaswami is deficient with respect to the additional limitation of associating metadata with the captured media signal; but takes the position that the examiner's analysis of claim 92 is not consistent with the analysis of claim 91. Specifically, applicant argues that the examiner's indication in the previous action that element 128 of Narayanaswami corresponds to the claimed recorder, precludes the reference from teaching the 'associating metadata' limitation, because it is not shown how associating metadata occurs in element 128 of the cited publication.

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Examiner's Response: Applicant's arguments with regard to claim 91 have been fully considered but are not persuasive. The limitations in question are expressly taught at paragraph [0041] of Narayanaswami. This paragraph discloses a camera 100 (i.e. a media signal recorder) which is operatively coupled to an external computer via a 'known interface standard' (i.e. a communication interface). This camera can store digital images in memory (i.e. record a media signal) and transfer them to an external computer (via the aforesaid communication link).

Applicant's arguments with regard to claim 92 have been fully considered but are not persuasive. It appears that the applicant has misinterpreted the previous action's interpretation of the '684 publication. The below rejection should clear up applicant's confusion.

Summary of Argument: Claims 85-88 were previously rejected under 35 USC 103a as being obvious in view of the '684 publication and Rhoads (WO 97/43736). Applicant traverses all of these rejections (see remarks pg. 6).

Examiner's Response: Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 91 and 92 are rejected under 35 U.S.C. 102(e) as being anticipated by Narayanaswami et al. (U.S. Patent Application Publication No. US 2003/0011684 A1).

As applied to claim 91, Narayanaswami et al. discloses a method of associating auxiliary data with a media signal in a media signal processing system, the system including a media signal recorder (see the camera 100 disclosed in Figure 1), a computer (see paragraph [0041], which describes an external computer), and an interface for communicating between the recorder and the computer (see paragraph [0041]: The reference describes a communication link between the camera and an external computer).

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Narayanaswami further discloses the method comprising automatically steganographically encoding media signal data with digital watermark data upon transfer to the computer (see Fig. 1: Reference numeral 134 is used to apply an invisible digital watermark to the image.).

As was already discussed above, Narayanaswami discloses that the computer is a separate device from the media signal recorder (see paragraph [0041]: The reference describes that a serial port interface and a parallel port interface for coupling the camera to a computer for downloading information from the camera to the computer (i.e. the computer is external to the media signal recorder).).

As applied to claim 92, Narayanaswami et al. discloses associating metadata in the recorder with a media signal captured in the recorder, transferring said metadata to the computer with the media signal, and associating said metadata in the computer with the digital watermark (see paragraph [0033] and paragraph [0041]: The reference describes an image/parameter processor 106 for recording a plurality of parameters (i.e. metadata) onto an image (i.e. media signal). The reference also describes linking the camera to a computer for downloading information from the camera's memory 108 to the computer. This information could include the parameters.).

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 85-88, and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Narayanaswami et al. (U.S. Patent Application Publication No. US2003/0011684 A1) and Rhoads (WO 97/43736).

As applied to claim 85, Narayanaswami et al. discloses a system for data capture including a media signal capture device (see Fig. 1: Reference numeral 100 referring to a camera), the system including: a recorder for capturing a media signal (see the camera disclosed in camera 100, which records a digital image).

Narayanaswami further discloses a steganographic encoder for encoding auxiliary data in the media signal (see Fig. 1: Reference numeral 134 referring to a watermark processor); memory for storing the media signal with steganographically encoded auxiliary data and additional data captured by the system (see Fig. 1, paragraph [0041], and paragraph [0049]: The reference describes a memory 108 that stores the watermarked digital images (i.e. the media signal with steganographically encoded auxiliary data) and parameters (i.e. additional data captured by the system).); and transferring the media signal and additional data from the system (see Fig. 1 and paragraph [0038]: The reference describes the use of an IR processor 118 or RF processor 112 for transmitting (i.e. transferring) parameters and digital images from the camera 100 to external computing devices.).

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As applied to claim 86, Narayanaswami et al. discloses that the media signal comprises a video signal, and the steganographic encoder encodes auxiliary data in frames of video (see paragraph [0032]: The reference describes that the camera in Fig. 1 can obtain and watermark video information.).

Claim 85 further calls for the auxiliary data to include a reference used to associate the media signal with the additional data read from the memory. Narayanaswami et al. does not teach this feature; however, Rhoads, in the same field of endeavor of image watermarking, discloses such a feature (see page 80, lines 16-23: The reference describes that by selecting a read watermark option, a user can discover the contents (i.e. additional data) of the watermark (i.e. auxiliary data) by pressing the Web-lookup button (i.e. reference) from an external source (i.e. the memory).).

As applied to claim 87, Rhoads discloses that the media signal comprises an audio signal, and the steganographic encoder encodes auxiliary data in frames of audio (see page 5, line 19: The reference describes that the processing can be performed on an audio signal.).

As applied to claim 88, Rhoads discloses that the reference comprises an identifier number (see page 80, line 19: The Web lookup button (i.e. reference) can be considered an identifier number.).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Narayanaswami et al. by adding the use of a reference to associate the media signal with the additional data as taught in Rhoads because such a system allows for a watermark containing a small amount of data to be embedded into an image and then linked to a large amount of data. Therefore, the watermark can be easily embedded into the image due to its relatively small size, and contain a large amount of information, since it is linked additional information about the image capture device.

As applied to claim 93, Narayanaswami et al. discloses a media signal capture device (see Fig. 1: Reference numeral 100 referring to a camera) including: a recorder for capturing a media signal (see Fig. 1: Reference numeral 128 referring to the camera electronics); a steganographic encoder for encoding auxiliary data in the media signal (see Fig. 1: Reference numeral 134 referring to a watermark processor); and usage control information being automatically retrievable by networked devices to determine usage control for use of the media signal (see Fig. 1 and paragraph [0037]: The reference describes a Personal Area Network (PAN) receiver 122 for obtaining recordable parameters (i.e. usage control information) via the PAN which links special electronic devices (i.e. networked devices) having a transceiver and CPU carried on the individuals using human conductivity. This device allows the camera to receive parameters such as the identity of the photographer. Without this information, the camera cannot be used. Therefore, in a sense, this parameter helps to control the usage of the media signal.).

Claim 93 further calls for the auxiliary data to include a reference to a database that stores usage control information for the media signal. Narayanaswami et al. does not teach this feature; however, Rhoads, in the same field of endeavor of image watermarking, discloses such a feature (see page 80, lines 16-23: The reference describes that by selecting a read watermark option, a user can discover the contents of the watermark (i.e. auxiliary data) from an external source such as the World Wide Web (i.e. a database). This information can include usage control information.).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Narayanaswami et al. by adding the use of an external data base as taught in Rhoads because such a system allows for a watermark containing a small amount of data to be embedded into an image and then linked to a large amount of data. Therefore, the watermark can be easily embedded into the image due to its relatively small size, and contain a large amount of information, since it is linked to a database of information

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick L Edwards whose telephone number is (703) 305-6301. The examiner can normally be reached on 8:30am - 5:00pm M-F.

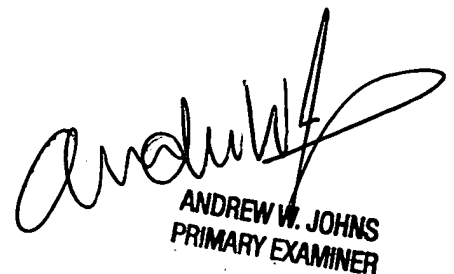
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick L Edwards

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ANDREW W. JOHNS  
PRIMARY EXAMINER